NORTH CAROLINA

COUNTY OF WAKE

IN THE OFFICE OF ADMINISTRATIVE HEARINGS
24 EHR 00862,
24 EHR01469,
24 EHR 01470

City of Asheboro, North Carolina,

Petitioner,

and

City of Reidsville, North Carolina and City of Greensboro, North Carolina

Petitioner-Intervenor,

v.

NC Department of Environmental Quality, Division of Water Resources,

Respondent.

24 EHR 00862

City of Reidsville, North Carolina

Petitioner,

v.

NC Department of Environmental Quality, Division of Water Resources

Respondent.

24 EHR 01469

City of Greensboro, North Carolina

Petitioner,

v.

NC Department of Environmental Quality, Division of Water Resources

Respondent.

24 EHR 01470

DOWNSTREAM INTERVENORS AMICUS BRIEF

NOW COMES Fayetteville Public Works Commission ("FPWC"), Cape Fear Public Utility Authority ("CFPUA"), and Brunswick County, North Carolina ("Brunswick") (collectively, the "Downstream Intervenors") and respectfully state:

At its core, this case is not about the imposition of wastewater treatment requirements for 1,4-dioxane upon the "unsuspecting" cities of Asheboro, Greensboro or Reidsville (collectively, the "Upstream Dischargers") or their industrial customers. Nor is this case seriously about whether 1,4-dioxane is a carcinogen. This case is about the Upstream Dischargers' attempt to distort the requirements of the Clean Water Act to suit their own purposes.

The Upstream Dischargers wish to make 1,4-dioxane someone else's problem. They want to allow their wastewater customers to dispose of their 1,4-dioxane by releasing it into the Upstream Dischargers' sewer systems, where it can then pass-through the Upstream Dischargers' publicly owned treatment works ("POTW") without any treatment and be discharged into the Cape Fear River Basin. The Upstream Dischargers would prefer to force everyone else to be responsible for removing their customers' 1,4-dioxane from downstream drinking water, rather than remove it themselves before discharge or prevent it from getting into their sewer systems – and the Cape Fear River – in the first place.

The problem is that there are real people who live downstream of the Upstream Dischargers. Those real people rely on the Cape Fear River for drinking water.

Indeed, the Downstream Intervenors serve close to 750,000 of those real people, and those real people should not have to bear the burden of the Upstream Dischargers' refusal to abide by the clear language of federal and state law any longer.

LEGAL BACKGROUND

Congress enacted the modern-day Clean Water Act ("CWA" or the "Act") in 1972. CWA Section 301(a) prohibits the discharge of any pollutant to a surface water without a National Pollutant Discharge Elimination System ("NPDES") permit.[1] Section 402(a) of the Act establishes the federal NPDES permit program.[2] Section 402(b) allows states to develop their own NPDES permitting programs and submit them to EPA for approval.[3] Section 402(c) provides that when EPA approves a state's NPDES permitting program, the federal program is "withdrawn," and the state's approved program becomes the sole authority for issuing NPDES permits in that state.[4] The North Carolina Department of Environmental Quality and its predecessors (collectively, "DEQ" or the "Department") have had an approved NPDES permitting program since 1975.[5]

In 1987, Congress was disappointed with the progress EPA and the states had made in dealing with the problem of toxic water pollutant discharges. So, Congress

[1] 33 U.S.C. § 1311(a).

[2] 33 U.S.C. § 1342(a).

[3] 33 U.S.C. § 1342(b).

[4] 33 U.S.C. § 1342(c).

[5] U.S. EPA, NPDES State Program Authority, *available at* https://www.epa.gov/npdes/npdes-state-program-authority (last visited Jan. 15, 2024).

amended the Act. Among other things, it added Section 303(c)(2)(B),[6] which requires states to adopt water quality standards for toxic pollutants. EPA published guidance regarding implementation of this requirement in 1988 (the "1988 Guidance").[7] Therein, EPA described three approaches that states could use to establish water quality standards for toxic pollutants. North Carolina ultimately chose a hybrid approach in which it would promulgate some numerical standards for toxic pollutants and use a "translator mechanism" for others.[8] A translator mechanism codifies a mathematical procedure used to calculate an enforceable water quality standard in the event the state has not promulgated a numeric standard for a particular toxic pollutant.[9] 15A NCAC 02B.0208(a)(2) ("Section 0208(a)(2)") is North Carolina's translator mechanism for toxic pollutants.[10] Consistent with the 1988 Guidance, Section 0208(a)(2) is also part of North Carolina's surface water quality standards.[11] EPA first approved North Carolina's water quality standards for toxics in 1991.[12]

[6] 33 U.S.C. § 1313(c)(2)(B).

[7] U.S. EPA, Guidance for State Implementation of Water Quality Standards for CWA Section 303(c)(2)(B) (1988), *available at* https://www.epa.gov/sites/default/files/2018-10/documents/guidance-state-implement-wqs-cwa-sect303c.pdf (last visited Jan. 15, 2024).

[8] 56 Fed. Reg. 58420, 58462 (Nov. 19, 1991).

[9] 1988 Guidance at 8.

[10] The translator mechanism for carcinogens like 1,4-dioxane is codified in Section 0208(a)(2)(B). The translator mechanism for non-carcinogenic system toxicants is in Section 0208(a)(2)(A).

[11] 15A NCAC 02B.0208(a) (establishing narrative water quality standard for toxic pollutants).

[12] 56 Fed. Reg. at 58462.

These water quality standards play a critical role in establishing pollutant-specific effluent limits in NPDES permits.

The CWA, and DEQ's approved NPDES permitting program, contemplate two types of effluent limits: technology-based effluent limits ("TBEL") and water quality based effluent limits ("WQBEL").[13] First, DEQ establishes TBELs for specific pollutants based on the categorical standards for the type of industry generating the wastewater at issue.14 Then, if the Department determines that TBELs will not be sufficiently stringent to ensure downstream surface waters will comply with the applicable water quality standards, DEQ calculates a WQBEL.15 The WQBEL ensures that the mass of the pollutant discharged into the receiving water, after accounting for dilution of that mass in the water column, will not cause the concentration of that pollutant to exceed the applicable standard.

Numeric water quality standards for some toxic pollutants are codified in the North Carolina Administrative Code (the "NCAC").[16] DEQ uses the translator mechanism in Section 0208(a)(2) to calculate enforceable water quality standards and WQBELs for toxic pollutants when a numerical standard is not codified in the NCAC.

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[13] 15A NCAC 02B.0403 (defining both terms).

[14] The Downstream Intervenors note that TBELs for 1,4-dioxane are not at issue in this case.

[15] 15A NCAC 02B.0404(a).

[16] *See, e.g.,* 15A NCAC 02B.0211; 02B.0212; 02B.0214; 02B.0215; 02B.0216; 02B.0218.

Absent a variance, the imposition of WQBELs for a pollutant, including toxic pollutants, is mandatory.[17]

ASHEBORO'S PERMIT

The Department renewed the NPDES permit for Asheboro's POTW on August 21, 2023 (the "Permit"). Prior to issuing the Permit, DEQ published a draft of the Permit (the "Draft Permit") for public comment on December 9, 2022 and it held a public hearing about the Draft Permit on May 23, 2023. The Draft Permit was the subject of extensive public comments, both in writing and at the public hearing. The Permit establishes a WQBEL for discharges of 1,4-dioxane using the translator mechanism for carcinogens contained in 15A NCAC 02B.0208(a)(2)(B).

THE DOWNSTREAM INTERVENORS

FPWC is a North Carolina Water and Sewer Authority created pursuant to N.C. Gen. Stat. Chapter 162A. FPWC provides water, electric, and wastewater services to Cumberland County, Fayetteville, portions of Hoke County, as well as water service to Fort Liberty. Discharges from Asheboro's POTW contribute to the presence of 1,4-dioxane at the location of FPWC's drinking water intake on the Cape Fear River. FPWC has incurred costs in the form of ongoing sampling of surface waters and will continue to incur costs in the form of additional monitoring and the cost to install, operate and potentially modify treatment technology as a result thereof. Asheboro's discharges of 1,4-dioxane directly affect the health of FPWC's customers.

[17] 40 C.F.R. § 122.44(d) (incorporated by reference at 15A NCAC 02B.0408(a)(25); 15A NCAC 02B.0404.

CFPUA, also a statutory North Carolina Water and Sewer Authority, provides water and wastewater services to customers within New Hanover County – including residents of the City of Wilmington – and provides potable water to the Town of Wrightsville Beach. Discharges from Asheboro's POTW have a reasonable potential to contribute to elevated concentrations of 1,4-dioxane at the location of CFPUA's drinking water intake on the Cape Fear River. As the furthest-downstream user of the Cape Fear River, CFPUA has consistently asserted the necessity of WQBELs, timelines for achieving compliance, and effluent monitoring for 1,4-dioxane within the Cape Fear River Basin. CFPUA has incurred costs in the form of ongoing sampling of surface waters and ozone and biological filtrations systems. It will continue to incur costs in the form of additional monitoring and the cost to operate treatment technology. Asheboro's discharges of 1,4-dioxane directly affect the health of CFPUA's customers and CFPUA's statutory duties and regulatory obligations in continuing to provide potable drinking water.

Brunswick operates a Public Enterprise under N.C. Gen. Stat. § 153-274 for water supply and distribution, as well as for wastewater collection, treatment and disposal. As part of its public enterprise system, Brunswick operates the Northwest Water Treatment Plant, which is solely supplied by raw water from the Cape Fear River. That facility has a treatment capacity of 24 million gallons per day ("MGD"), and Brunswick is currently in the process of expanding to 45 MGD. Discharges from Asheboro's POTW contribute to the presence of 1,4-dioxane at the location of Brunswick's drinking water intake on the Cape Fear River. Brunswick has incurred

costs in the form of ongoing sampling of surface waters and will continue to incur costs in the form of additional monitoring and the cost to install, operate and potentially modify treatment technology as a result thereof. Asheboro's discharges of 1,4-dioxane directly affect the health of Brunswick's customers.

Collectively, the Downstream Intervenors represent almost three-quarters of a million North Carolinians whose drinking water is affected by Asheboro's discharges of 1,4-dioxane and the Permit's limits thereon.

ARGUMENT

The Upstream Dischargers invite the State of North Carolina onto thin legal ice by asking the Office of Administrative Hearings to reject the 1,4-dioxane limit in Asheboro's Permit. In the hopes of continuing to make 1,4-dioxane someone else's problem, they ask this Tribunal to ignore the plain language of Section 0208(a)(2), the history of its adoption and the requirements of the CWA to which it is directed.

I. 15A NCAC 02B.0208(a)(2) is, and was Intended to Be, a Self-Implementing Water Quality Standard for Toxic Pollutants

The 1987 CWA amendments required states to adopt water quality standards for toxic pollutants. EPA gave the states three options for the development of those water quality standards: (1) immediately promulgate a numeric standard for each one; (2) promulgate numeric standards for the toxic pollutants that are present in a state's surface waters and expected to interfere with their designated uses; or (3) use a codified translator mechanism to calculate enforceable water quality standards.[18]

[18] 56 Fed. Reg. at 58424-25.

EPA noted that a translator mechanism, "is also a valuable supplement to either option 1 or 2,"[19] and believed that it is "best suited for use as a supplement to option 2."[20] EPA continued, "To assure that the State is capable of *dealing with new problems as they arise*, EPA also recommends that States adopt a translator procedure which is the same as, or similar to, that described in Option 3, but applicable to all chemicals causing toxicity and not just priority pollutants as is the case for option 3."[21]

North Carolina took EPA's advice and chose to use a combination of options 2 and 3, *i.e.*, the State codified some numerical standards in the NCAC explicitly and it adopted a translator mechanism to address those toxic pollutants without a numerical standard.[22] The Environmental Management Commission published a notice of proposed rulemaking regarding Section 0208(a)(2) on April 3, 1989,[23] and published a notice of final rulemaking regarding that provision on October 2, 1989.[24] EPA first approved this hybrid approach as the state's water quality standards for toxic pollutants on February 7, 1991.[25]

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[19] 56 Fed. Reg. at 58425.

[20] 1988 Guidance at 1.

[21] *Id.* at 8 (emphasis added).

[22] 56 Fed. Reg. at 58462.

[23] 4:1 N.C. Reg. at 31.

[24] 4:13 N.C. Reg. at 705.

[25] 56 Fed. Reg. 58462.

Implementing a translator mechanism begins with a state's narrative water quality standard. That narrative standard starts by prohibiting toxicity in surface waters. Then, the state adopts "a procedure to be applied to the [narrative standard that] would be used … in calculating derived numeric criteria."[26] Those derived numeric criteria would then be used "for all purposes under section 303(c) of the CWA."[27] Notably, a translator mechanism is a codified rule, *i.e.*, a rule adopted through a state's appropriate rulemaking procedure, that provides an *alternative* to expressly codifying and undergoing the rulemaking process for each numerical standard. It establishes a supplemental authority to address toxics for which the state has no codified numeric standard, in lieu of forcing states to codify numeric standards for each one as they arise.

Section 0208(a)(2) works in precisely this manner. First, Section 0208(a) states the narrative water quality standard for toxic pollutants. Specifically, it prohibits concentrations of toxic pollutants in surface waters, alone or in combination with other wastes, that are either injurious or that would impair the designated uses of a surface water. Section 0208(a) then states that this narrative standard "shall be interpreted as follows…." Next, Section 0208(a)(1) establishes standards to prevent chronic toxicity to aquatic life due to toxic pollutants. Finally, Section 0208(a)(2) codifies two translator mechanisms: one for non-carcinogenic system toxicants, in Section 0208(a)(2)(A); and another for carcinogens in Section 0208(a)(2)(B).

[26] 1988 Guidance at 1.

[27] 1988 Guidance at 1.

The Upstream Dischargers claim that the portion of Section 0208(a)(2)(B) referencing numerical standards for carcinogens in water supply surface waters that are codified in other portions of the NCAC renders Section 0208(a)(2)(B) nothing more than a formula identifying "the procedural and mathematical aspects by which to calculate water quality standards for toxic substances."[28] However, EPA's requirements for a translator mechanism, in general, make it clear that Section 0208(a)(2) is a self-implementing, directly enforceable, translator mechanism for toxic pollutants. EPA identified five key elements that are "essential" for translator mechanisms:

1. "The procedure (i.e., narrative criterion and translator) must be used to calculate numeric water quality criteria;"
2. "The State must demonstrate to EPA that the procedure results in numeric criteria that are sufficiently protective to meet the goals of the Act;"
3. "The state must provide for full opportunity for public participation during the adoption of the procedure;"
4. "The procedure *must* be formally adopted as a State rule and *be mandatory in application*; and"
5. "The procedure must be submitted for review and approval by EPA *as part of the State's water quality standards* regulation."[29]

[28] Petitioners' Memo in support of MSJ at 19.

[29] 56 Fed. Reg. at 58425 (emphasis added).

Given that North Carolina intended for Section 0208(a)(2) to be a translator mechanism,[30] it must be read and applied in a manner that is consistent with EPA's "essential" translator mechanism elements.

The requirement in element 1 that the translator mechanism be used to calculate numeric water quality criteria, combined with the plain language of the second part of element number 4 (providing that the translator mechanism "must … be mandatory in application") and EPA's earlier statement that the result of the translator mechanism produces a water quality standard for all purposes under CWA Section 303(c) (such as providing a basis for establishing WQBELs),[31] demonstrates that the Upstream Dischargers are wrong about the purpose for Section 0208(a)(2). Recall that the purpose of a translator mechanism is to provide an alternative to codifying each and every water quality standard for toxic pollutants individually. It is a gap-filler. Section 0208(a)(2) could not serve that purpose if it were simply a formula for calculating a proposed standard that then needed to proceed through notice-and-comment rulemaking.

Elements 3 and 5, along with the first half of element number 4, further confirm that a translator mechanism is a source of immediately enforceable water quality standards. Element 3 requires a full opportunity for public participation during development of the translator mechanism. This is to ensure a state can satisfy the first half of element 4 (the requirement to formally adopt the translator

[30] 56 Fed. Reg. at 58462.

[31] 1988 Guidance at 1.

mechanism as a "State rule"). Element 5 requires the translator mechanism to be submitted for review and approval by EPA in order to make the output of the translator mechanism a proper basis for a WQBEL in an NPDES permit.[32]

The Environmental Management Commission published a notice of proposed rulemaking regarding Section 0208(a)(2). It conducted three public hearings in Asheville, Raleigh and Pine Knoll Shores regarding Section 0208(a)(2). It then published a notice of final rulemaking regarding Section 0208(a)(2). EPA approved Section 0208(a)(2) as part of North Carolina's water quality standards.[33] As such, the numeric output of Section 0208(a)(2) is an enforceable water quality standard that must be considered in establishing WQBELs in an NPDES permit.

As much as the Upstream Dischargers wish for Section 0208(a)(2) to be strictly procedural or a mere formula to use in a rulemaking, EPA's implementation of the 1987 amendments to the Act, the State of North Carolina's own representations to EPA regarding the effect of Section 0208(a)(2) and EPA's reliance on the State's representations to approve North Carolina's toxic pollutants water quality standards demonstrate otherwise.

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[32] Section 303(c)(3) of the Act provides that new state water quality standards, including the state's adoption of the translator mechanism in Section 0208(a)(2) in 1989, become enforceable only after approval by EPA. 33 U.S.C. § 1313(c)(3). Again, EPA approved Section 0208(a)(2) as a water quality standard in 1991. *See supra* at note 17 (listing authority for establishing WQBELs in NPDES permits).

[33] Regarding element 2, there is no dispute that the mathematical procedure in Section 0208(a)(2) produces a water quality standard for carcinogens in water supply surface waters that is consistent with the purposes of the CWA. It is intended to prevent excess cancer risk greater than one on one million. The 1988 Guidance indicates this level of protection is appropriate. *Id.* at 4.

II. Because Section 0208(a)(2) is Self-Implementing, No Additional Rulemaking Activity is Necessary Here

When Section 0208(a)(2) is seen within the context of the 1987 CWA amendments, it becomes clear that this provision is not the procedural paper tiger the Upstream Dischargers claim that it is. It is not simply a formula by which a proposed water quality standard may be calculated." Rather, it is, and – from the moment of its promulgation – has been, an independent source of authority to determine a water quality standard for toxic pollutants and a related WQBEL. Section 0208(a)(2) could not function as a translator mechanism otherwise.

As such, the Upstream Dischargers' insistence that the Department is attempting to enforce a rule that has not been adopted in accordance with the North Carolina Administrative Procedure Act is misplaced. The translator mechanism itself was formally codified in accordance with North Carolina's rulemaking requirements. The Environmental Management Commission's publication of its notice of final rulemaking regarding Section 0208 in October of 1989, and EPA's approval of the water quality standard that Section 0208(a)(2) represents in February 1991, gave DEQ the authority it asserts here. No further rulemaking is required for the 1,4-dioxane effluent limit in Asheboro's Permit.[34]

[34] The Downstream Intervenors note that the Draft Permit, including the use of Section 0208(a)(2) to calculate the water quality standard for 1,4-dioxane, was – itself – the subject of a public comment period from December 9, 2022 to January 27, 2023, as well as a public hearing on May 23, 2023. *See* N.C. DEQ, Notice of Intent to Issue a NPDES Wastewater Permit NC0026123 Asheboro WWTP, *available at* https://www.deq.nc.gov/news/events/notice-intent-issue-npdes-wastewater-permit-nc0026123-asheboro-wwtp (last visited Jan. 15, 2024); N.C. DEQ, DEQ to Hold Public Hearing for City of Asheboro Wastewater Permit, *available at* https://www.deq.nc.gov/news/press-releases/2023/04/20/deq-hold-public-hearing-city-asheboro-wastewater-permit (last visited Jan. 15, 2024). Thus, the imposition of a water quality standard derived through the translator mechanism is not entirely without reproach or exempt from public comment. Indeed, at the permitting stage a

III. 1,4-dioxane is a Carcinogen for Purposes of Section 0208(a)(2)

As the Department has explained, EPA and the Environmental Management Commission have already made the determination that probable or likely carcinogens (whether based on animal or human studies) are carcinogens for purposes of the CWA's toxic water pollutants program and Section 0208(a)(2).[35] In addition, CWA Section 303(c)(2)(B) requires states to establish water quality standards for all toxic pollutants listed pursuant to Section 307(a)(1) of the Act. Some of those listed pollutants are considered to be probable/likely carcinogens, but they do not have codified, numeric water quality standards in the NCAC. Therefore, in order to satisfy the requirement to have a water quality standard for those substances, Section 0208(a)(2) must be read to apply to those probable/likely carcinogens.

For example, the compound hexachloroethane is a toxic pollutant that is listed pursuant to Section 307(a)(1) of the Act.[36] States are required to have water quality standards for it. Hexachloroethane is a likely human carcinogen.[37] However, the numerical water quality standards for surface waters classified as "WS-I," "WS-II", "WS-III," "WS-IV" and "WS-V" do not contain a numerical standard for that compound.[38] Therefore, the only source of a water quality standard to satisfy the requirements of CWA Section 303(c)(2)(B) for hexachloroethane is Section 0208(a)(2).

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permittee or other commenters could assert whether a translator mechanism was appropriately used for a specific toxic and whether the mechanism was applied correctly.

[35] Respondent's Memo in support of MSJ at 28-30.

[36] 40 C.F.R. § 401.15.

[37] Respondent's Memo in support of MSJ at 28.

[38] *See, e.g.,* 15A NCAC 02B.0211; 02B.0212; 02B.0214; 02B.0215; 02B.0216; 02B.0218.

CONCLUSION

The Downstream Intervenors, and the 750,000 customers they serve, have a right to expect that the State of North Carolina will honor the commitment it made to EPA almost thirty-five years ago to control toxic water pollution. Each Downstream Intervenor operates its own POTW, and each of them is aware of the possibility that – in the future – the Department might use its authority under Section 0208(a)(2) to establish effluent limits in their NPDES permits as well. However, each Downstream Intervenor is also aware of the responsibility they have to protect the Cape Fear River for the benefit of everyone else.

EPA developed the concept of a translator mechanism and recommended that states adopt one into their water quality standards for this exact situation. A translator mechanism provides a way to address the effect of toxic pollutants on surface waters as they are discovered. The State of North Carolina understood that this was the purpose of a translator mechanism and chose to codify one into Section 0208(a)(2) over thirty years ago. The Upstream Dischargers should not be allowed to rewrite history in order to avoid responsibility for discharging 1,4-dioxane into the source of the Downstream Intervenors' drinking water.

Respectfully submitted,

This the 31st day of May, 2024.

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CERTIFICATE OF SERVICE

I, Sean M. Sullivan, do hereby certify that the foregoing document was served upon all parties of record by electronic service, as defined in 26 NCAC 03 .0501(4).

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